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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,608	09/06/2006	Arnd Ritz	DE040075US1	7788
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EXAMINER ROY, SIKHA				
ART UNIT 2879		PAPER NUMBER		
MAIL DATE 06/23/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/598,608

Applicant(s)

RITZ, ARND

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06 April 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/ISD)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 6, 2009 has been entered.

The new title has been entered and is approved by the Examiner.

The objection to Drawing has been withdrawn.

Claims 1-10 are pending in the instant application.

Specification

The disclosure is objected to because of the following informalities:

The specification discloses on page 1 lines 1-5 and page 3 lines 26-30, 'wherein a region with a **lowest temperature** and a region with a *highest temperature* establish themselves at the **inner** and the *outer contour* of the burner wall respectively'. It is not clear how the **region with the lowest temperature** is at the **inner contour of the burner wall**. According to the submission of the applicant (Remarks section page 1) those having ordinary skill in the art can generally determine, without any undue experimentation, a location wherein the region of lowest temperature establishes itself at the outer contour of the burner wall based on the known principles of pyrometry.

Furthermore, those having ordinary skill in the art will specifically know a region of lowest temperature at the outer contour of the burner wall will be the lowest point of the outer contour of the burner wall in the midpoint of the electrodes, such as, for example, a region 30 of the outer contour of a burner wall 25 in the midpoint of electrodes 41 and 42. Proper clarification is required.

Claim Objections

Claim 1 is objected to because of the following informalities:

The limitation of 'material of the burner wall is not transparent to the infrared light' is objected. As disclosed in the specification (page 4 lines 1-5) the applicant has disclosed the burner wall absorbs infrared radiation and because of sufficient absorption in this wavelength range (infrared wavelength) the material of the wall is accordingly not transparent for this wavelength. The Examiner notes how does the interference filter on the outer contour of the burner wall reflect the infrared radiation if the burner wall absorbs the radiation. Proper clarification is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 5 the recitation of 'interference filter is arranged in that location or at least in that location where the region of lowest temperature establishes itself at the contour of the burner wall' is not specific because according to claim 1 the region with lowest temperature establishes at the contour of the burner wall in dependence of the mounting position of the lamp during operation and hence without reciting any particular orientation of the lamp renders the claim indefinite. Furthermore the Examiner notes that the position of the region of lowest temperature at the contour of the burner wall' also depends on the variables such as position of the discharge electrodes and dimension and shape of the burner of the lamp and hence the claim fails to particularly point out and distinctly claim the subject matter.

Regarding claim 6 the recitation of 'interference filter is arranged not in that location where the region of lowest temperature establishes itself at the contour of the burner wall' is not clear because according to claim 1 the region with highest temperature establishes at the contour of the burner wall in dependence of the mounting position of the lamp during operation and hence without reciting any particular orientation of the lamp renders the claim indefinite. Furthermore the Examiner notes that the position of the region of highest temperature at the contour of the burner wall' also depends on the variables such as position of the discharge electrodes and dimension and shape of the burner of the lamp.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,5-10 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,952,768 to Strok et al.

Regarding claim 1 Strok discloses (Fig. 2 col. 2 lines 35-48 col. 3 lines 16-20 col. 4 lines 7-60) a high pressure discharge lamp comprising a burner 26 which has burner wall 32 and a discharge chamber 34 enclosed by the burner wall wherein a region with a lowest temperature (cold region where metal halides migrate and condense) and a region with highest temperature (hot region) establish themselves at the contour of the burner wall during operation and in dependence with mounting position (orientation) of the lamp. Strok further discloses a multilayer interference filter 58 is provided on a portion of the contour of the burner wall where the interference filter 58 reflects towards the discharge chamber mainly light in the wavelength range of infrared light. The burner wall of the lamp of Strok being formed of **quartz** (same as that disclosed by the applicant) inherently has its maximum emissive power and being absorbent of infrared radiation is not transparent for that radiation.

Regarding claim 2 Strok discloses the multilayer interference filter 58 is characterized in that a layer with a higher refractive index and a layer with a lower refractive index occur in alternation in its structure.

Regarding claim 5 Strok discloses the interference filter is arranged in the location of the lowest temperature region (horizontally disposed arc tube typically forms a cold region at the bottom of the bulbous portion) at the contour of the burner wall. (This fact is well known in the art as noted by the applicant in the Remarks section).

Regarding claim 6 Strok discloses the interference filter disposed on the contour of the burner wall including the bottom and the two side ends of the arc tube and hence is arranged not in the location of the lowest temperature region.

Claim 7 adds no limitation to claim 1 and hence is rejected for the same reason.

Regarding claim 8 Strok discloses (col. 4 lines 20-25) the material of the burner wall is made of quartz and accordingly the interference filter is capable of reflecting mainly infrared light in the wavelength of 2 micron.

Regarding claim 9 Strok discloses a lighting unit comprising the lamp.

Regarding claim 10 Strok discloses (col. 5 lines 37-42) the lamp used in a projection system (optically controlled) in automotive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,952,768 to Strok et al. as applied to claim 1 above, and further in view of USPN 4,652,789 to Kawakatsu et al.

Regarding claim 3 Strok discloses (col. 4 lines 60-64) the layer having lower refractive index comprises SiO_2 and the second layer of higher refractive index than SiO_2 comprises tantalum oxide or titanium oxide.

Strok does not exemplify the layer with high refractive index comprising preferably zirconium oxide (ZrO_2).

Kawakatsu in same field of endeavor discloses (col. 2 lines 28-37) a multilayer infrared reflecting filter composed of plurality of laminated layers in which one layer of high refractive index consisting tantalum oxide, zirconium oxide and the layer with low refractive index consisting of silica.

The selection of known material for a known purpose is considered to be within the skill of the art. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute zirconium oxide for the layer with high refractive index as disclosed by Kawakatsu for tantalum oxide of Strok since selecting known material for a known purpose is within the skill of the art.

Regarding claim 4 Strok discloses the second layer of high refractive index is made of tantalum oxide (tantalum), titanium oxide (titanium).

Response to Arguments

Applicant's arguments with respect to 112 second paragraph rejection of claims 5 and 6 and prior art rejection of claim 1 have been considered but are not persuasive.

Regarding claims 5,6 the applicant alleges that those having ordinary skill in the art will be able to definitively determine the location of the region of the lowest temperature at the outer contour of the burner wall during the operation of the lamp and in dependence of the mounting position of the lamp. But claim 5/6 does not recite the mounting position of the lamp, hence fails to particularly point out and distinctly claim the subject matter and renders the claim indefinite.

Regarding claim 1, in response to applicant's argument that Strok fails to teach or suggest an interference filter reflecting towards the discharge chamber mainly light in a wavelength range of infrared light wherein the material of the burner wall has its maximum emissive power, the examiner respectfully disagrees. The burner wall of Strok is made of **quartz** and is same as that disclosed by the applicant and hence inherently has **its maximum emissive power** and being absorbent of infrared radiation is not transparent for that radiation.

Referring to applicant's allegation 'the maximum emissive power of a material of the burner wall 26 is not taken into consideration' the examiner notes that the material used for the burner wall in prior art (Strok) is same as that of the applicant. It is elementary that mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to distinguish over the prior art. Additionally, where the Patent Office has reason to believe that a functional

limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. *In re Swinehart*, 169 USPQ 226 (CCPA 1971).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sikha Roy/
Primary Examiner, Art Unit 2879

